

FEASIBILITY STUDY

Shelby, NC 180
US 74 Business to US 74 Bypass
Cleveland County
U-2221

Prepared by
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

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The subject project is included in the 1987-1995 Transportation Improvement Program for feasibility study and/or right-of-way protection. This report provides a brief initial analysis of possible improvements. The project is not currently funded. Location of the project is shown on the attached map.

I. GENERAL DESCRIPTION

The proposed project consists of widening NC 180 from US 74 Bypass to US 74 Business, a distance of 0.9 mile. Construction of a five-lane (64-foot) curbed roadway appears to be feasible.

II. PURPOSE OF PROJECT

NC 180 is designated a major thoroughfare in the Shelby Thoroughfare Plan and functions as a circumferential north south route. The current traffic volume of 10,000 VPD is expected to increase to approximately 18,000 VPD by the end of the planning period (year 2007). These volumes exceed the capacity of the existing two lane roadway. The provision of additional lanes will alleviate congestion and provide for improved access to the Cleveland County Technical Institute, county office buildings, and adjacent development.

The project has the support of the City of Shelby and is also recommended by the Division Engineer. Existing pavement width along the studied project is 20 feet. The Division Engineer has immediate plans for widening the pavement to 24 feet and improving roadway shoulders. Horizontal and vertical alignment are generally good except for a section near the US 74 Bypass which will require some flattening of the curves. The existing right-of-way is 60 feet. Additional right-of-way will be required for the proposed improvements.

Speed limit in the studied area is 45 MPH. Traffic signals exist at US 74 Business and US 74 Bypass intersections. There are no structures on the studied segment of NC 180. Development along the northern section of the project consist of county school property and office buildings. Land use along the remainder of the project is primarily residential mixed with some commercial development.

III. RECOMMENDED IMPROVEMENTS

Widening of NC 180 to a multi-lane facility is highly desirable. The recommended cross section is a five-lane (64 foot) curbed roadway. Acquisition of a 90-foot right of way will be necessary to contain construction. The City of Shelby concurs in the recommended 64-foot

curbed width. Symmetrical widening of NC 180 is recommended except offset widening within the curves is proposed to improve the horizontal alignment.

The estimated cost of recommended improvements is \$2,100,000 including \$1,100,000 for construction and \$1,000,000 for right-of-way and utilities. Cost estimates were made by the Roadway Design Unit and Right of Way Branch.

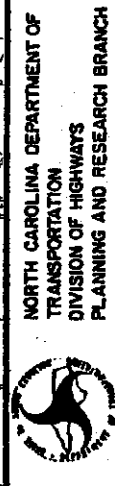
IV. ALTERNATIVES

Initially a four lane cross section was recommended in the Thoroughfare Plan. However, traffic projections and the need for turn lanes at intersections and adjacent development required a five lane roadway. A five-lane shoulder section was considered but rejected due to additional right-of-way cost and the location of the project in an urban area.

V. POSSIBLE ENVIRONMENTAL IMPACTS

No significant environmental impacts are anticipated. Possibly two homes and one business are to be relocated. Some increase in noise levels may result. If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in a planning/environmental document prior to that time, and a final decision made as to the most appropriate improvement.

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**NC 180, SHELBY, CLEVELAND COUNTY
FROM US 74 BYPASS TO US 74 BUSINESS
FEASIBILITY STUDY**

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